

Date: Thu, 12 Aug 93 04:30:11 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #10
To: Ham-Ant

Ham-Ant Digest Thu, 12 Aug 93 Volume 93 : Issue 10

Today's Topics:

 ??loop vr diapole
 Computer Rotator Control?
 H or V polarization?
 IS there an R5---R7 Cushcraft upgrade???
 Polarization (2 msgs)
 RE: Antenna Resistance/Reactance
 Wavelength formula
 What makes an antenna resonant? (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 12 Aug 1993 04:43:13 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!news.ucdavis.edu!
bullwinkle.ucdavis.edu!szhall@network.ucsd.edu
Subject: ??loop vr diapole
To: ham-ant@ucsd.edu

I plan to get a good commerical ant or my HF rig next year but until then
I would like some comment on the following--In the mean time I will make a
choice of two of the following ant. I can put up a diapole or a
horizontol loop..The loop will take more work but will it be that much
better than diapole? Would most hams do the extra work to put up a loop?
The loop will be used for 40 to 10 meters with a tunner..please
comment..tnx Jeff N6MYF,

Date: Wed, 11 Aug 1993 14:04:38 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!torn!nott!bnrgate!
nmerh207!corpgate!nrtpa038!brtph560!brtph87!tcain@network.ucsd.edu
Subject: Computer Rotator Control?
To: ham-ant@ucsd.edu

In article <1993Aug10.163439.8161@walter.cray.com> rps@cray.com (Russell P. Starksen) writes:

>Are there any kits, plans or packages around that control antenna rotators
>from a computer? I have seen beam heading software but nothing that
>automagically points the beam in that direction by controlling the rotator.
>Has anyone done this? Does it work? Any Ideas?

>

Try the JAMSAT TrakBox. Completely self-contained rotor control system.
Will run AZ-EL rotors in a standalone mode or via a serial port. Currently
available as a kit from TAPR for a limited time. About 200 bucks. Call
602-749-9479 Tues - Fri 10:00am - 3:00pm Mountain STANDARD Time

--

Tom Cain WB8OUE tcain@bnr.ca
disclaimer: i don't speak for nobody!

Date: 12 Aug 1993 04:00:24 -0500
From: swrinde!cs.utexas.edu!not-for-mail@network.ucsd.edu
Subject: H or V polarization?
To: ham-ant@ucsd.edu

I am resending a previous message since it was returned as it bounced.
I also made some correction, in case it was actually received.

Sorry if this might be slightly out of place in a radio amateur's newsgroup:

I have always been puzzled by the fact that most broadcasting stations use vertically polarized antennas, but still some do exist (e.g. in my hometown Milano) which use H polarization on FM. Forgetting all the theory, in pure practice, which would be the advantages and disadvantages of using H polarization instead of V or Circular? In the case of the FM station in Milano, the engineers chose H to try beating near co-channel interference from V polarized stations on very near frequencies. This happens in Italy where often we have more than one station on the same channel, and spacing may be as little as 100 kHz (no rules set by the PTT on this yet!).

As for AM broadcasting (we call it Medium Wave in Europe), would an H polarized antenna have an advantage for a low power **long distance/nighttime** station,

assuming that the station has little interest in broadcasting during the daytime and does not want to cover the area next to the transmitter (no ground waves so to speak)?

I do not know of any example of H polarized AM/Medium Wave broadcast station in the world, so perhaps there is something wrong in what I am writing. Any hint or reference to stations which use **H** polarization (and why) will be appreciated. Please reply by e-mail, and I will be glad to summarize if there is interest (I do not get a full feed of this newsgroup).

Thanks,

73,

Alfredo Cotroneo
Milano, Italy

--

Alfredo E. Cotroneo, Bull HN Italia, I-20010 Pregnana MI, Italy	/ \
work: A.Cotroneo@it12.bull.it	(o o)
personal: 100020.1013@compuserve.com	
phone: +39-2-6779 8314 / 8427 fax: +39-2-6779 8289	\ _ /

Date: Wed, 11 Aug 1993 17:46:42 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
vixen.cso.uiuc.edu!uchinews!spssig.spss.com!feenix.metronet.com!
marcbg@network.ucsd.edu
Subject: IS there an R5---R7 Cushcraft upgrade???
To: ham-ant@ucsd.edu

In article <249s75\$oti@news.ysu.edu> ap451@yfn.ysu.edu (Justin Randall Padawer) writes:

>
>Is there a factory upgrade for the Cushcraft R5 antenna that will make it
>work as an R7???
>Randy, WA4FJF
>ap451@yfn.ysu.edu

Great question. Yes, there is, but it's absurd. Why? Because it costs almost as much as a new R7! I got an R5 from an estate sale last year, so the price was right. I inquired (with AES) about the price of the upgrade - I think it's like \$269! A new R7 is in the mid-300 range I think. I can't even imagine why they offer the upgrade at all.

The advice I was given by several hams: If you want the R7, sell your R5

and buy a new R7. It will be the same amount of assembly work and probably wind up saving you around \$100.

What I did: put up a dipole for 80 and 40!

Good luck
Best 73,

--

Marc B. Grant, N5MEI | marcbg@feenix.metronet.com | 214/231-3998 (voice)
P.O. Box 850472 | marcbg@esy.com | 214/231-0025 (fax)
Richardson, TX 75085 |

Date: Wed, 11 Aug 1993 20:02:36 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
vixen.cso.uiuc.edu!sdd.hp.com!hpscit.sc.hp.com!news.dtc.hp.com!srngenprp!
alanb@network.ucsd.edu
Subject: Polarization
To: ham-ant@ucsd.edu

Doug Braun (dbraun@ilx049.intel.com) wrote:

: What happens when people with horizontally polarized HF beams
: try to talk to those with vertically polarized antennas?

: Does it matter? Is the polarization of HF signals
: essentially random, because of ionospheric effects?

Right. By the time a signal bounces off the ionosphere and returns to
earth, the polarization can be considered random.

AL N1AL

Date: Wed, 11 Aug 1993 15:13
From: dog.ee.lbl.gov!overload.lbl.gov!agate!library.ucla.edu!news.mic.ucla.edu!
MVS.OAC.UCLA.EDU!CSMSCST@network.ucsd.edu
Subject: Polarization
To: ham-ant@ucsd.edu

In article <CBM2CC.GrD@srngenprp.sr.hp.com>,
alanb@sr.hp.com (Alan Bloom) writes:

>Doug Braun (dbraun@ilx049.intel.com) wrote:

>

>: What happens when people with horizontally polarized HF beams
>: try to talk to those with vertically polarized antennas?
>
>: Does it matter? Is the polarization of HF signals
>: essentially random, because of ionospheric effects?
>
>Right. By the time a signal bounces off the ionosphere and returns to
>earth, the polarization can be considered random.
>
>AL N1AL
>

Many years ago, when a buddy and I first got our tickets, we had some experience with this. Our QTHs were about 2 miles apart, line of sight, on small hills. On 2m, there seemed to be 20-30 db difference between vertical-horizontal and same polarization. On HF (10m & 40M) we noted very little difference between his vertical to my beam vs. vertical to vertical. I'm sure that in "free space", the HF case would look like the 2m case, but any normal amateur HF antenna installation is a long way from free space, and much distorted by ground effects, feedline radiation, structure reflections, etc. etc.

-- 73 de Chris Thomas, AA6SQ (ex-WA6HTJ) (CSMSCST@MVS.OAC.UCLA.EDU)

Date: 11 Aug 93 14:55:19 GMT
From: agate!howland.reston.ans.net!vixen.cso.uiuc.edu!uwm.edu!linac!mgweed!
cbnewsk!cbnewsj!k2ph@ames.arpa
Subject: RE: Antenna Resistance/Reactance
To: ham-ant@ucsd.edu

Date: 12 Aug 1993 00:07:57 GMT
From: munnari.oz.au!newshost.anu.edu.au!gorton.anu.edu.au!jaa101@network.ucsd.edu
Subject: Wavelength formula
To: ham-ant@ucsd.edu

In article <1993Aug07.004648.7781@moe.corollary.COM>, garyl@moe.corollary.COM
(Gary Lorman) writes:

> In article <1978@arrl.org> jkearman@arrl.org (Jim Kearman) writes:
> >
> >Wavelength = 984/Freq (MHz)
> >

>
> I seem to remember a formula for wavelength being:
> Speed of Light (Meters per Second) = Wavelength (Meters) x Frequency (Hz)
> of
> Wavelength = speed of light / Frequency (L = CF)
> So, for example, 3Mhz = 100Meters, 30Mhz=10Meters, 300Mhz=1Meter.
>
> Is this wrong?

Looks fine to me. Of course non-metric folk often have problems like this but the original formula above equates to saying that the speed of light is 984,000,000 feet per second - interesting unit that! Let's convert it:

$$984,000,000 \times 12 \times 25.4 / 1,000 = 300,000,000 \text{ m/s}$$

I think the judges will allow it.

--
James Ashton
VK1XJA
Voice +61 6 249 0681
FAX +61 6 249 2698
Email James.Ashton@anu.edu.au
System Administrator
Department of Systems Engineering
Research School of Physical Sciences and Engineering
Australian National University
Canberra ACT 0200 Australia

Date: 12 Aug 1993 04:43:33 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
vixen.cso.uiuc.edu!uwm.edu!csd4.csd.uwm.edu!pachner@network.ucsd.edu
Subject: What makes an antenna resonant?
To: ham-ant@ucsd.edu

Is a 80 ft dipole made of 16 awg wire, the same resonance as an antenna made of 10 awg wire?

Could you use two metal plates that have same surface area as a 80 ft wire made with 10 awg wire?

--
Thomas Jay Pachner ==- Music Major, Bassist, Gamer, and Amateur Operator
University of Wisconsin - Milwaukee - pachner@csd4.csd.uwm.edu
Appreciator of all kinds of true music (sorry rap and country)
Amateur Call Sign: waiting since July 10 (it's worse than tax returns)

Date: Thu, 12 Aug 1993 10:40:00 GMT

From: usc!sol.ctr.columbia.edu!news.kei.com!ub!acsu.buffalo.edu!
ubvms.cc.buffalo.edu!oopdavid@network.ucsd.edu
Subject: What makes an antenna resonant?
To: ham-ant@ucsd.edu

In article <24chplINNri7@uwm.edu>, pachner@csd4.csd.uwm.edu (Thomas Jay Pachner) writes...

>Is a 80 ft dipole made of 16 awg wire, the same resonance as an antenna made
>of 10 awg wire?

>

No, the Q factor will vary with frequency (which you did not specify)

>Could you use two metal plates that have same surface area as a 80 ft wire made
>with 10 awg wire?

>

Sure, YOU could use metal plates to make a big capacitor, but it would be just that.

>

>--

>Thomas Jay Pachner ==- Music Major, Bassist, Gamer, and Amateur Operator

>University of Wisconsin - Milwaukee - pachner@csd4.csd.uwm.edu

>Appreciator of all kinds of true music (sorry rap and country)

>Amateur Call Sign: waiting since July 10 (it's worse than tax returns)

Date: (null)

From: (null)

In case you have trouble locating it, note that later editions are edited by Richard C. Johnson, as Dr. Jasik died some 16 years ago.

73,

Bob K2PH

--

Bob Schreibmaier K2PH | UUCP: ...!att!mtdcr!bob
AT&T Bell Laboratories | Internet: bob@mtdcr.att.com
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o8'W

End of Ham-Ant Digest V93 #10
